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Economic Intelligence Report

INVESTMENT IN COMMUNIST CHINA

1952-60



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INVESTMENT IN COMMUNIST CHINA*
1952-60

Summary and Conclusions

Increases in investment, which played the primary role in the remarkable economic growth achieved by Communist China during 1952-59, probably did not continue in 1960, as the industrialization program ran into unexpected difficulties because of "leap forward" methods in planning and because of the withdrawal of Soviet industrial technicians from China. From 1952 to 1959 the annual rate of increase in investment is estimated at about 30 percent. The resulting expansion of productive capacity was the major factor in the achievement of an average annual rate of increase from 1952 to 1959 of about 9 percent in gross national product (GNP) and of about 20 percent in net industrial production, measured in Chinese prices.** Similar increases were not achieved in 1960, and GNP and industrial production in China in 1961 and subsequent years are likely to increase at rates below those of 1952-59.

The fundamental policy of restricting consumption while rapidly expanding investment was generally successful during 1952-59, in large part because of the extension and refinement of government control over manpower and materials. As a consequence, the proportion of GNP allocated to investment increased rapidly, from about 9 percent in 1952 to 15 percent in 1957 and 26 percent in 1959.***

Investment in industry in Communist China constituted an increasing proportion of total investment, rising from 31 percent in 1952 to 52 percent in 1959. Investment in industry was characterized by the

* The estimates and conclusions in this report represent the best judgment of this Office as of 1 May 1961.

** Measured in terms of the US price structure, the increase of GNP and industrial production achieved during 1952-59, although still impressive, would be significantly lower than that shown by valuation in yuan.

*** Investment in this report refers to outlays for new plant and equipment and other fixed assets. Changes in the value of industrial and commercial inventories -- an important component of the more inclusive measure, gross domestic investment -- are excluded. Gross domestic investment, in comparison with the amounts in the text, was 15 percent of GNP in 1952, 20 percent in 1957, and 31 percent in 1959. For a definition of these terms, see the Glossary, Appendix D.

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construction of large industrial installations -- steel mills, electric powerplants, an oil refinery, machine-tool plants, aircraft factories, and other modern establishments -- built with Soviet assistance. In 1952-57, 40 percent of industrial investment was allocated to these "Soviet aid projects," and 24 percent was thus allocated in 1958-59. By the end of 1959 a total of 130 such projects had been completed. Other features of investment in industry were (1) the 7-to-1 ratio of investment in heavy industry compared with investment in light industry and (2) the relative emphasis since 1957 on investment in branches of industry that support the agricultural sector of the economy.*

Investment in agriculture in Communist China constituted a declining share of total investment during 1952-59, falling from 36 percent in 1952 to 27 percent in 1959. In absolute terms, however, investment in agriculture in 1959 was five times the level of 1952. Great benefits will accrue to the agricultural sector if the present emphasis on long-term, high-cost construction in the field of water conservancy is maintained. The policy of forcing the agricultural sector to rely on its own manpower and materials for meeting short-term investment requirements also appears to have been profitable. Agricultural output would have increased more, however, if a larger portion of industrial growth had been directed to production of goods -- such as chemical fertilizer, agricultural tools and machinery, irrigation and power equipment, and insecticides -- that support agriculture.

Investment in the transportation sector of Communist China (including post and telecommunications) averaged 12 percent of total investment during 1952-59. Approximately 64 percent of investment in this sector went into the expansion and improvement of the railroad network. Investment in other sectors -- culture, education, and health; administration; trade and finance; municipal public utilities; and "other" -- averaged about 13 percent of total investment during 1952-59.

Investment in housing is scattered through all four of the sectors described above and amounted to about 9 percent of total investment during 1952-59. The rate of growth of the stock of housing failed to match the rate of growth of the population, and floorspace is estimated to have declined from 4.6 square meters (50 square feet) per person in 1952 to 4.4 square meters (47 square feet) in 1959.

Investment in the field of national defense, which for the most part comes under investment in industry, amounted to a minimum of 7 percent of total investment during 1952-59. Construction of plants

* The allocation of investment among industry, agriculture, transportation, and "other" is presented in the chart, Figure 1, following p. 4.

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that produce military goods accounted for approximately 75 percent of all known investment in defense, the remainder being accounted for by acquisition of fixed facilities such as army installations, airfields, and naval bases.

In 1960, a year beset with difficulties for the economy of Communist China, the investment program did not achieve the objectives set by the regime. The sudden withdrawal of Soviet industrial technicians from China in July-August 1960 appears to have forced a sharp cutback in construction activity. The withdrawal of the technicians, superimposed on already existing difficulties with the planning and coordination of construction, forced the regime to adopt more conservative investment policies and to defer expansion of capacity in technologically complex branches of industry.

Total investment in 1960, which was originally planned by the regime to increase 19 percent above the level of 1959, probably did not increase at all. Indeed, it is possible that investment in 1960 fell as much as 5 percent below the level of 1959.

During 1961-63, total investment probably will increase less rapidly than during 1952-59 even if the Soviet technicians return to China. It is not clear whether or not the current severe shortages of food, caused by the second consecutive year of bad harvests, will result in a substantial shift in allocation of investment away from industry toward agriculture.

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I. Introduction

Since coming to power in 1949 the Chinese Communist regime has made remarkable progress toward making China the leading economic power in Asia. One of the most important factors in achieving this economic growth has been the regime's determined effort to limit consumption while expanding investment as rapidly as additions to national output permit. The purpose of this report is to estimate the growth and allocation of investment in China since 1952.

II. Sources of Funds for Investment, 1952-59

Most analyses of investment policies in Communist China concentrate on investment financed through the national budget. Concentration on this "state investment," however, neglects two important additional sources of investment -- extrabudgetary investment and "peasant" investment.

A. Budgeted Funds

Appropriations in the state budget accounted for 70 to 75 percent of total investment funds during 1952-59.* Most of these investment funds are carried under "economic construction expenditures." Other smaller amounts of investment funds are carried under "administration" and "social, cultural, and educational" activities. In addition to the economic construction funds designated for agricultural investment, a part of the budget category of agricultural operating expenditures and working capital also has to be included as part of the funds for agricultural investment. Most of the funds from the category of agricultural operating expenditures and working capital, which constitutes from 5 to 8 percent of total budgeted investment funds, are used for the increase of fixed assets.** These funds cannot be considered as true working capital funds, because their chief use is for wage and subsistence payments for labor used in construction and repair of irrigation, water conservancy, and afforestation projects.

B. Extrabudgetary Funds

Extrabudgetary funds, which amounted to 5 billion yuan*** in 1959, have constituted as little as 4 percent (1956) and as much as

* For estimates of total funds for investment and subcategories of sources of these funds, see Table 1, Appendix A, p. 23, below.

** For a definition of fixed assets, see the Glossary, Appendix D.

*** Unless otherwise indicated, yuan values in this report are given in current yuan and may be converted to US dollars at a rate of exchange of 2.46 yuan to US \$1. This rate, Footnote continued on p. 6

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16 percent (1958) of total Chinese Communist investment funds. These funds normally were not mentioned in the presentation of the national budget until 1957, when the regime began to make rough estimates of their magnitude. Estimating the size of these funds is difficult because they are composed of a number of diverse elements that are represented by various bank accounts of enterprises and government organizations and because a number of items periodically have been moved into or eliminated from this category.

Through 1957 the two main components of this category were (1) funds raised by private and joint state-private enterprises in Communist China from their own operations and used for investment and (2) funds accumulated by enterprises in worker welfare funds and used for such nonproductive* construction as messhalls, clubs, and canteens. By 1958, socialization had eliminated private enterprises, and joint state-private enterprises, handicraft cooperatives, and other non-agricultural business enterprises were operating under the same standards as those of state-owned enterprise management. For budget purposes these enterprises were reclassified as state-owned enterprises after 1958, and their investment expenditures were moved from the extrabudgetary category and included as part of budgeted investment.

In 1957, welfare funds probably constituted much of the extra-budgetary fund. The industrial reorganization of 1958, however, which widened the incentives of production by providing the enterprises with a new system of profit-sharing, added a new component to extrabudgetary funds. This new component, the system of profit-sharing whereby a portion of above-plan profits could be retained by the enterprises, coupled with encouragement by the regime of construction of many small-scale production facilities from such funds, resulted in a large expansion of extrabudgetary funds from 1.2 billion yuan in 1957 to 5.3 billion yuan in 1958. State control of these funds has never been as tight as state control of budgeted investment funds, and it is suspected that a larger proportion of extrabudgetary funds goes for the increase of nonproductive fixed assets than is the case with budgeted investment funds.

which is based on the yuan-sterling rate for telegraphic transfers, bears no relationship to domestic price levels, nor does it necessarily reflect the value of yuan in terms of dollars.

* For a definition of nonproductive investment, see the Glossary, Appendix D.

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C. "Peasant" Funds

Most discussions of the agricultural investment policies of the Chinese Communist regime are centered on state allocations to agriculture, water conservancy, and forestry from budgeted funds. Additional funds, however, are accumulated from agricultural income and also are used for increasing fixed assets.

For convenience, these latter funds are referred to in this report as "peasant" investment. Such funds represent an aggregate accumulated from income and from state loans and subsidies and used for purchase of fixed assets by many diverse economic units in the countryside, primarily households and agricultural producer cooperatives through 1957 and households, production brigades, and communes since that time. For some of the larger units, such as the more successful production brigades and communes, as much as 30 percent of annual income might be available for purchase of investment goods. Generally, however, the proportion remaining for purchase of investment goods for most of these individual units after meeting consumption and working capital requirements probably is much smaller.

Funds accumulated by such diverse and numerous economic units are not individually large and are used chiefly to purchase materials for repair and construction of farm buildings and small-scale irrigation and water conservancy works and to purchase draft animals, tools, and machinery. The predominance of agricultural activity in Communist China has meant, however, that these funds in the aggregate are substantial and have averaged approximately 16 percent of total funds for investment during 1952-59. Although peasant funds for investment have increased steadily in every year except 1957, they have not increased as greatly as budgeted and extrabudgetary funds for investment, and in 1959 such funds were only about four times the investment in 1952.*

III. Allocation of Investment, 1952-59

The fundamental economic objective of the leadership of Communist China is the rapid transformation of China into a modern industrialized country. To achieve this goal, the regime consistently has restricted consumption and has expanded investment as rapidly as possible.** The proportion of GNP allocated to investment increased rapidly during 1952-59, rising from about 9 percent of GNP in 1952 to 15 percent in

* The relative importance of each of the three sources of investment funds is presented in the chart, Figure 2, following p. 8.

** Total investment for 1952-59 is shown in Table 2, Appendix A, p. 24, below.

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1957 and 26 percent in 1959. The average annual rate of increase in investment from 1952 to 1959 was approximately 31 percent,* and this rapid increase was primarily responsible for the achievement of an average annual rate of increase of about 9 percent in China's GNP and about 20 percent in industrial production, measured in Chinese prices.**

Investment from budgeted and extrabudgetary funds increased at an average annual rate of 32.8 percent, with the result that total gross fixed assets increased at a rate of 17.0 percent.*** This high rate of increase resulted in a tripling of the value of these fixed assets during 1952-59. The value of fixed assets added from "peasant" investment in this period is unknown.

In 1956, total investment (18.5 billion yuan) increased about 50 percent above the level of 1955 (12.4 billion yuan). Nevertheless, organizational difficulties created by the process of socializing the economy, a poor performance in the agricultural sector, and deficiencies in the supply of goods and materials required for the 1956 investment program led the regime to adopt a policy of retrenchment. Total capital investment in 1957 fell to 17.2 billion yuan, 1.3 billion yuan below investment in 1956.

Investment in 1958 was 33.1 billion yuan, 92 percent higher than the level achieved in 1957. Several factors influenced this "leap forward"† in investment. The decline in capital investment, together with a good year in agriculture in 1957, resulted in a replenishing of both consumer and producer goods stocks. The "leap

* The base year for all average annual rates of increase in this report is 1952.

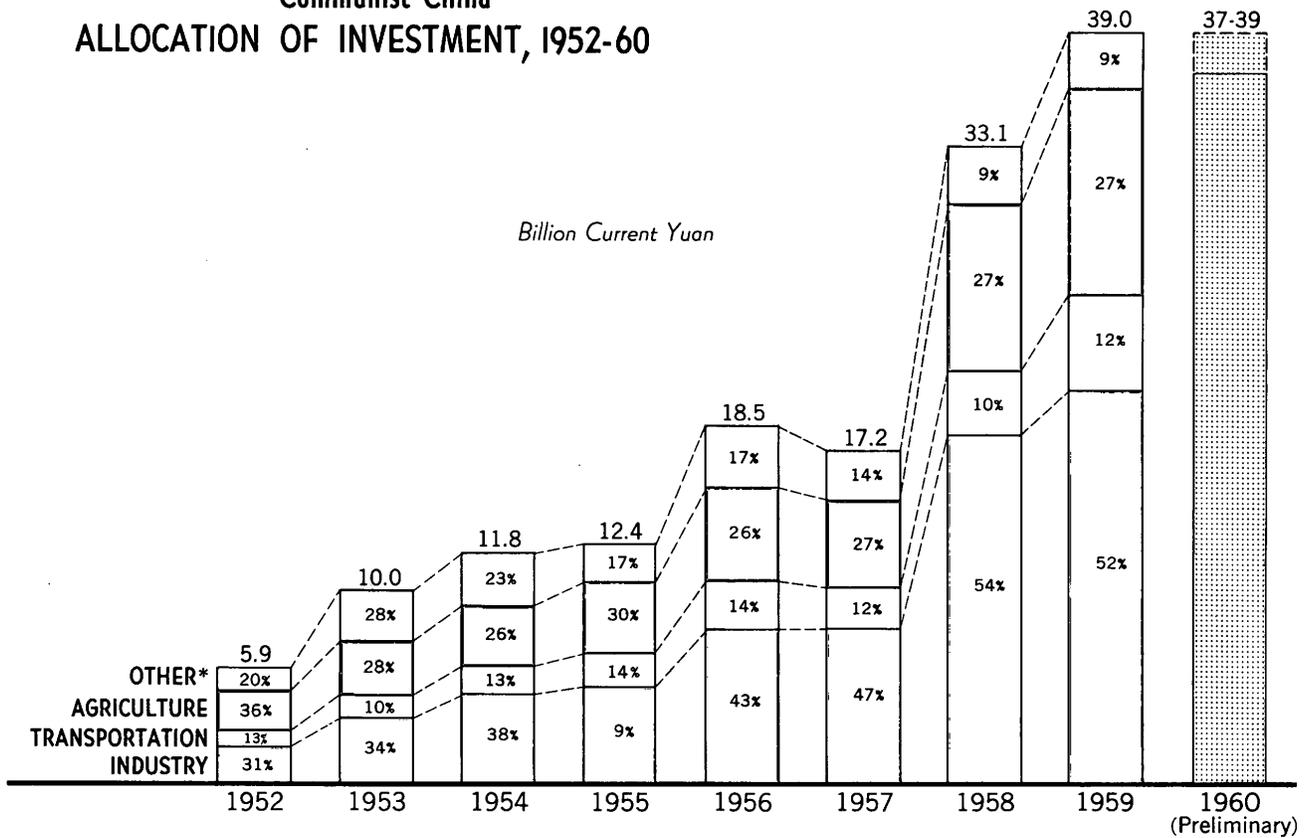
** Measured in terms of the US price structure, the increase of GNP and industrial production achieved during 1952-59, although still impressive, would be significantly lower than that shown by valuation in terms of the Chinese price structure. The difference in the two valuations is caused by relatively high prices of producer goods and relatively low prices of consumer goods and services in the Chinese Communist economy compared with the US economy. Because the Chinese economy is geared to increasing production of producer goods faster than production of consumer goods and services, valuations of China's GNP in US prices will show a slower rate of growth than valuations in Chinese prices. Similarly, investment expenditures in terms of US prices would be lower relative to GNP than in terms of Chinese prices.

*** Total fixed assets and additions to fixed assets from budgeted and extrabudgetary investment are shown in Table 3, Appendix A, p. 25, below.

† The term leap forward as used in this report refers to the regime's policy -- instituted in 1958 and carried over into 1959 and early 1960 in milder form -- of working men and machines at maximum speed with only secondary concern for the quality and balanced proportioning of output.

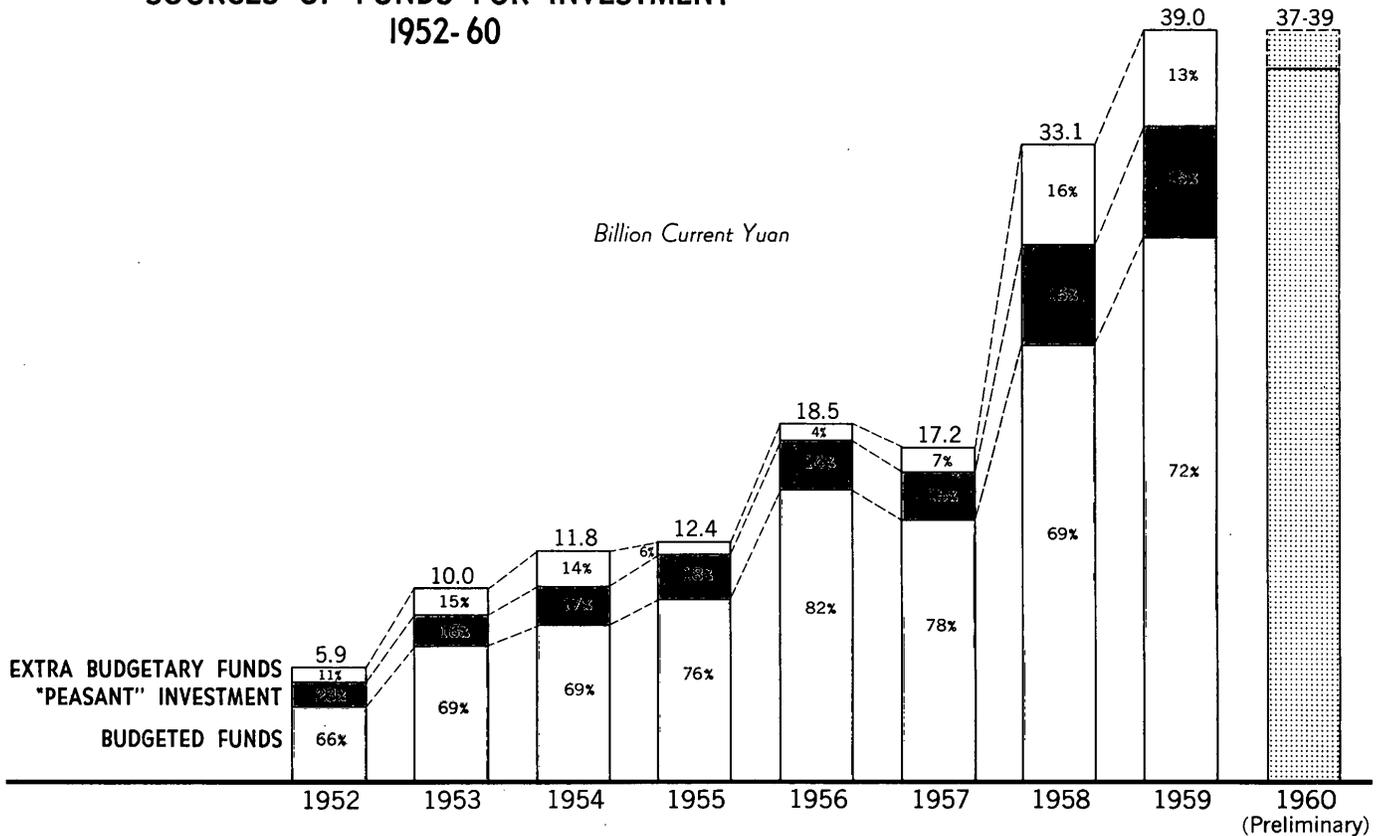
Figure 1

Communist China ALLOCATION OF INVESTMENT, 1952-60



*Includes Municipal Public Utilities, Culture, Education and Health, Trade and Finance, Administration, and Other.

Communist China SOURCES OF FUNDS FOR INVESTMENT 1952-60



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forward" in 1958 was further facilitated by large increases in capacity in key industries, resulting from the high level of investment in 1956 and 1957. Lastly, encouragement by the leadership of the construction by local authorities of hundreds of small-scale enterprises built and operated by labor-intensive methods supplied additional impetus.

Although some part of the investment undertaken in 1958 was wasted through indiscriminate planning and construction of economically unsound projects, the general effect was the rapid lifting of Communist China to a new level of economic growth. In 1959 the regime recognized the perils of encouraging indiscriminate construction and, under the theme of "running the country as a coordinated chess game," attempted to reinstate balanced, centrally planned construction under proper systems of priorities. With some semblance of planning and control restored, investment in 1959 reached 39 billion yuan, an 18-percent increase above the level achieved in 1958.*

In 1959, Communist China reached a new level of growth in which the problem of the allocation of resources for continued future growth was decidedly more complex than in 1952. Physical production had grown rapidly, and now better quality and more variety of output were needed. Growth had been uneven: agricultural development lagged behind the growth of industry while the population was rapidly increasing; the transportation system barely kept up with the rapid rate of increase of industrial growth, often operating with little or no excess capacity; and the development of such secondary areas as housing, public utilities, and education showed only slight improvement. This unevenness in economic growth was the result of the policies of allocation of investment adopted by the regime during 1952-59.**

A. To Industry

During 1952-58, investment in industry in Communist China constituted an increasing proportion of total investment, rising from 31 percent in 1952 to 54 percent in 1958. In 1959, however, the proportion of total investment devoted to industry declined slightly, to 52 percent, as a result of an increase in the allocation of investment to the transportation sector.

The allocation of large and increasing amounts of investment to industry was the major reason why income originating in industry

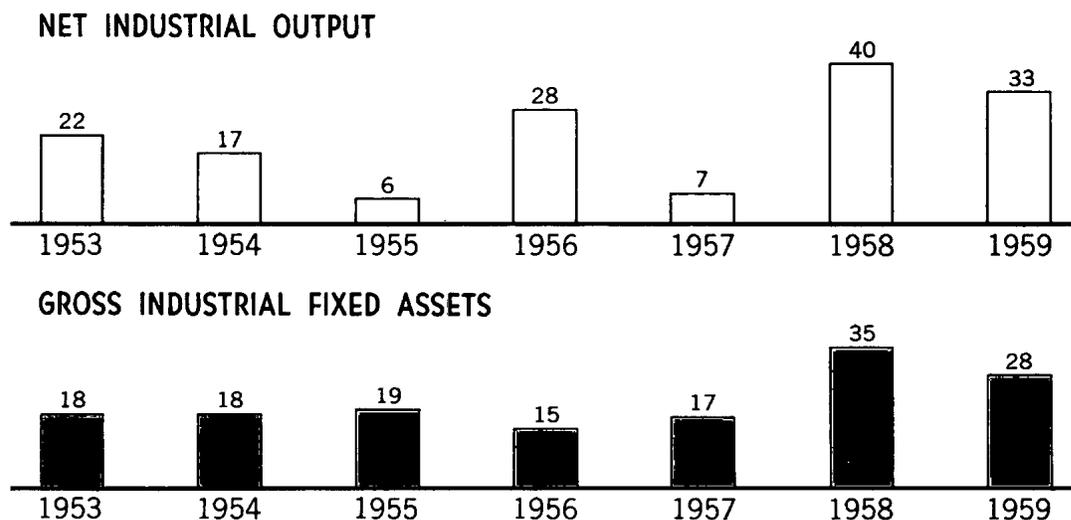
* For a discussion of the institutional framework for the investment program, see Appendix C.

** The allocation of investment by sector, 1952-59, is shown in Table 2, Appendix A, p. 24, below, and is presented in graphic form in Figure 1, following p. 4, above.

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rose from less than 12 percent of national income in 1952 to 18 percent in 1957 and to 25 percent in 1959. From 1952 to 1959 the average annual rate of increase in gross industrial fixed assets was 21.2 percent* and was almost equal to the average annual rate of increase in industrial output (21.6 percent). Part of the explanation of the phenomenal 40-percent increase in industrial output achieved in the "leap forward" year of 1958 lies in the steady rate of additions to gross industrial fixed assets from 1952 to 1957. As shown in the chart, Figure 3, increases in industrial output fluctuated during this

Figure 3



Communist China: Percentage Increases in Net Industrial Output
and in Industrial Fixed Assets, 1953-59

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period of consistently smooth annual additions to gross industrial fixed assets, implying substantial underutilization of these assets. In large measure the increase in industrial output of 1958 represents full use of these previously underutilized gross industrial fixed assets. As a result of this very high rate of increase in gross industrial fixed assets, their total value in 1959 was almost four times the level of 1952.

1. Assistance from the Bloc

Emphasis on investment in Communist China has resulted in the building up of an industrial plant approaching that of Japan in

* The index of increases in gross industrial fixed assets used here is uncorrected for price changes. There have been no significant changes in the prices of investment goods during this period.

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absolute size but not in per capita production or in quality or variety of output. This feat could not have been achieved without substantial outside material and technical support.* Four agreements signed between 1950 and 1956 provided for Soviet equipment and technical help for 166 major installations, of which 130 had been completed by the end of 1959. Additional agreements signed in 1958 and 1959 brought the total number of Soviet aid projects** to 291 and established 1967 as the date for completion of the program. During the early phase of industrialization, the program concentrated on the mining, metallurgical, and electric power industries, but since 1957 the emphasis has been shifting to more complex fields such as machine building, chemicals, and electronics.

Normally, for these Soviet aid projects the USSR supplied complete sets of machinery and the necessary technical experts, and the Chinese Communists supplied construction materials and labor. The costs of both the Soviet and the Chinese contributions were included in the regime's allocations of investment to Soviet aid projects. During 1952-57, almost 12 billion yuan, or about 40 percent of total investment in industry, went to these projects. In 1958 and 1959, approximately 9 billion yuan, or about 24 percent of investment in industry, went to these projects. The percentage allocated to Soviet aid projects declined during this period because total investment in industry expanded so rapidly.

The European Satellites supplemented the Soviet programs by helping to build 68 projects initiated during the First Five Year Plan (1953-57), most of which were completed by the beginning of 1961. The Satellites have signed additional agreements to help build 40 more projects. Except for an electronics combine built by East Germany near Peking, Satellite projects have been comparatively small. They include power stations and plants for producing cement, plastics, paper, and sugar.

2. Trends

Investment in heavy industry accounted for about 87 percent of total Chinese Communist investment in industry during 1952-59.***

* Communist China has not needed much financial support. Since the early years of the Communist regime, the country has been able to export enough agricultural products, light industrial and consumer goods, and minerals to pay for imported capital equipment.

** For a definition of Soviet aid projects, see the Glossary, Appendix D.

*** Estimates of heavy and light industrial investment are shown in Table 4, Appendix A, p. 26, below.

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Within heavy industry the largest amounts of investment consistently were allocated to the iron and steel, fuels and power, and machine building industries. Particular emphasis was placed by the regime on the development of the machine building industry, and investment in this industry constituted about 23 percent of total industrial investment during 1952-59. It is estimated that slightly more than one-half of this machine building investment during 1953-58 was devoted to the construction of facilities for production of military goods.*

Investment in light industry was directed toward reconstruction and expansion of the light industrial facilities inherited by the regime. The cotton textile industry received approximately one-half of all investment in light industry during 1952-59. The level of investment in light industry in each year throughout this period tended to fluctuate with the level of agricultural output of the previous year because most of the inputs to light industry come from agriculture.

One of the variations in the pattern of industrial investment that occurred in 1957 was a slight cutback in the proportion of investment going to the machine building and other manufacturing industries and an increase in the proportion going to industries that extract and process industrial raw materials. During 1952-57, about 70 percent of total industrial investment went to develop the raw material industries, and in 1958 and 1959 such investment constituted 76 percent of total industrial investment.

From the long-term point of view, a more important variation of the pattern of industrial investment occurred in 1957 in regard to the chemical fertilizer industry. Partial recognition by the regime in 1957 of the importance of developing the branches of heavy industry that support the agricultural sector -- such as the agricultural machinery and irrigation equipment industries and particularly the chemical fertilizer industry -- resulted in increased allocations to these industries. The major recipient of these increased allocations of investment was the chemical fertilizer industry. Even with increased priority given to those industries that support agriculture, it is doubtful that such investment constituted more than 5 to 7 percent of total heavy industrial investment for the entire period 1952-59. In view of the regime's belated recognition of the importance of these industries in 1957, larger allocations of investment probably should have been made to them in the earlier years, particularly for construction of chemical fertilizer plants, and additional allocations are likely to be necessary if agricultural development is to be accelerated.

* For a discussion of investment in defense activity, see E, 2, p. 17, below.

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B. To Agriculture

Investment in the Chinese Communist agricultural sector, which includes agriculture, water conservancy, forestry, and meteorology, increased at an average annual rate of about 26 percent from 1952 to 1959 and in 1959 was five times the level of 1952. As a proportion of total investment, agricultural investment constituted between 26 and 36 percent of total investment from 1952 through 1955 and was about 27 percent of the total during 1956-59.

Almost 50 percent of investment in agriculture came from budgeted and extrabudgetary funds during 1952-59 and is best described as long-term investment because the full returns cannot be expected for a number of years. Approximately 74 percent of this investment was devoted to water conservancy. The costs of constructing such immense projects as the Huai River water control system and the San-men and Liu-chia Gorge projects, as well as the costs of construction and repair of dikes, of water detention projects, and of ancillary irrigation works, are covered by this investment. Most of the remaining part of budgeted and extrabudgetary funds provided for the increase of fixed assets of agricultural experimental stations, agriculture extension services, and meteorological stations and also covered the costs of afforestation projects. It may be decades before some of the large water conservancy projects are finished and the distribution systems for electric power and water are completed.

Whereas one aspect of the regime's investment policy in agriculture has been to concentrate on long-term, high-cost projects, another aspect has been to compel the agricultural sector to rely on its own resources for meeting short-term investment requirements. Peasant investment constituted about 50 percent of investment in the agricultural sector during 1952-59 and was devoted chiefly to the acquisition of farm buildings, agricultural tools and machinery, draft animals, and equipment for small-scale irrigation works. Increases in agricultural production, however, have been at a rate only slightly above the rate of increases in population during the period. Greater increases in agricultural production in Communist China might have resulted if larger quantities of chemical fertilizer, insecticides, irrigation equipment, and agricultural tools and machinery had been available for use in combination with the abundant agricultural labor. Given the proportions of land, labor, and capital in China, industrial products that increase the yield from a given acreage are distinctly preferable to industrial products that displace labor.

The presentation by the regime in October 1959 of a 10-year program to modernize agriculture by replacing human and animal power with mechanical and electrical power and by providing abundant

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quantities of chemical fertilizer indicates that the leadership is attempting to increase the proportion of industrial output that directly supports agriculture.*

C. To Transportation

Investment allocated to the Chinese Communist transportation sector (which includes post and telecommunications) increased at an average annual rate of 30 percent from 1952 to 1959 and averaged 12 percent of total investment during this period. Whereas the level of investment in this sector was cut back to 2.1 billion yuan in 1957 from the level of 2.6 billion yuan in 1956 as part of the retrenchment policy, it was increased to 3.4 billion yuan during the "leap forward" year of 1958. Intensive use of the transportation network resulted in congestion in the system, and the regime allocated a 44-percent increase in investment (to 4.9 billion yuan) to this sector in 1959.

A rough breakdown of investment in this sector indicates that during 1952-59 approximately 11.5 billion yuan, or 64 percent of total investment in this sector, was directed to the expansion and improvement of the railroad network. This amount has covered the costs of double-tracking existing railroad lines; of adding large numbers of locomotives and freight cars; and of constructing new lines, such as the Lan-chou - Sinkiang line, into outlying areas of China. In addition, 2.2 billion yuan, or 12 percent of this investment, went into development of highways, and approximately 745 million yuan, or 4 percent, went to post and telecommunications. The remaining 3.6 billion yuan, or 20 percent of investment, went to the coastal and inland waterway transportation network and the civil aviation network.

D. To Other Sectors1. Culture, Education, and Health

Investment by the Chinese Communists in culture, education, and health has averaged about 4 percent of total investment during 1952-59. In absolute terms, investment in this sector has been subject to considerable fluctuation from year to year. The outstanding example of fluctuation occurred in the "leap forward" year of 1958, when investment fell to 710 million yuan from the 1957 level of 1 billion yuan. From 80 to 85 percent of all investment in this sector is allocated to cultural, scientific, and educational activities, and the sudden drop appears to have been the result of the impact of "leap

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forward" policies on education. Strong pressure for participation of students and faculties in production in 1958 resulted in an interruption in educational activity, and the regime probably felt little need to expand educational facilities.

Beginning in 1956, the regime probably increased investment in scientific activities such as construction of facilities for applied research under the various ministries of the central government. Data on investment in such activities are not available. Budget expenditures for science -- which include funds for the increase of fixed assets in scientific activity -- jumped to 244 million yuan in 1956, a fivefold increase above the level of 1955, and continued to show increases during 1957-59.

2. Administration

Investment in buildings and office equipment for administrative bodies in Communist China from 1952 to 1959 grew at an average annual rate of almost 40 percent and averaged about 1 percent of total investment.

3. Trade and Finance

Investment in the trade and finance sector increased at an average annual rate of 26 percent from 1952 to 1959. Investment funds were used chiefly for the construction of offices for banking organizations and of buildings and warehouses for the use of the trade network. Such investment has averaged approximately 2 percent of total investment in this period.

4. Municipal Public Utilities

Investment in municipal public utilities -- sewage and drainage facilities, gas and water lines, urban bus and trolley lines, urban highways, and electric light services -- increased at an average annual rate of about 24 percent and averaged about 2 percent of total investment from 1952 to 1959. Some dissatisfaction with the development of this sector in regard to urban water supply was noted in 1959. The regime calculated that in 1959 the amount of water available from municipal systems could meet only 48 percent of requirements, including the requirements of the greatly expanded industrial establishment.

5. "Other"

Investment in the "other" category increased at an average annual rate of 3 percent and averaged about 4 percent of total investment from 1952 to 1959. The composition of this category changed as

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items were moved in and out of this category during this period. Before 1956, investment by private enterprises and joint state-private enterprises apparently was listed in the "other" category. After the completion of socialization in 1956, this investment probably was transferred to such categories as industry and transportation. An important but unknown proportion of the "other" category is investment for the defense establishment in army installations, airfields, and naval bases. Increases in this latter subcategory in connection with the Korean War are a possible explanation for the sudden increase in the absolute level of investment in the "other" category in 1952 and 1953.

E. Investment in Housing and Defense Activity1. Housing

Almost 13 billion yuan of investment funds, or 9 percent of total investment, went into construction and reconstruction of housing during 1952-59. Allocations for construction of housing are included within investment in such sectors as industry, agriculture, transportation, and municipal public utilities. It is estimated that 7.7 billion yuan, or almost 60 percent of investment in housing, were used for construction of housing for the nonagricultural population and about 5.3 billion yuan for agricultural housing.

Although these allocations of investment are substantial, they do not appear to have been adequate. The total population of Communist China increased at an average annual rate of 2.5 percent from 1952 to 1959 while the total stock of housing increased at an average annual rate of only 1.8 percent. It is estimated that, at the minimum, per capita availability of housing dropped from 4.6 square meters (50 square feet) per person in 1952 to 4.4 square meters (47 square feet) per person in 1959.*

By Chinese Communist definition, construction of housing is nonproductive investment, and spokesmen of the regime reiterate the necessity for keeping such construction to a minimum.** It appears that the heavy pressure of the population on the stock of housing, which existed when the regime came to power, increased during 1952-59 and probably will continue to increase during the next few years.

* Estimated gross additions to housing in Communist China are shown in Table 5, Appendix A, p. 27, below.

** For a definition of nonproductive and productive investment, see the Glossary, Appendix D.

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2. Defense Activity

Data on Chinese Communist investment in defense activity* are closely held by the regime, and available data are not sufficient to permit estimates for the entire period 1952-59. The bulk of known investment in defense activity has been concentrated in the industrial sector, specifically in the machine building industry. It is estimated that, at the minimum, about 6 percent of total investment during 1953-58, or 6.1 billion yuan, went into construction of plants that produce military equipment.** Investment of this type is financed through the national budget. A second category of investment in defense activity, amounting to approximately 2 billion yuan during 1952-59, covers the cost of acquiring new fixed assets for the military establishment in the form of land, buildings, and other fixed facilities for air, naval, army, and air defense installations. Investment expenditures of this type are included in the "other" category of investment and are financed through the national budget. Aggregate investment in defense activity, therefore, can be estimated as amounting to a minimum of 7 percent of total investment during 1952-59, although information on this category of investment is relatively meager.

IV. Estimated Investment, 1960

The investment program in Communist China in 1960 was modified repeatedly throughout the year and probably did not achieve the objectives set by the regime. The original 1960 plans indicated that investment in that year would reach 46.33 billion yuan, an increase of almost 19 percent above the level of 1959, 39.03 billion yuan. Although the regime has not released information on investment in 1960, this investment probably did not increase and could even have fallen as much as 5 percent below the level of 1959. Two factors adversely affected investment in 1960. The first factor -- inadequate planning of investment and poor coordination of the various activities that go into construction activity -- was a carryover from the "leap forward" of 1958. The second factor was the withdrawal in July-August 1960 of the 2,000 to 3,000 Soviet industrial technicians working in China.

A. Planning and Coordination

In June and July 1960 a series of editorials in Jen-min Jih-pao (Peoples Daily) complained that construction was underway on too many projects and was diverting manpower and materials from production activities and that it was necessary to "shorten the battleline in construction." The priority system for distribution of construction

* Excluding public security forces.

** See the Methodology, Appendix B.

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materials was being bypassed, it was claimed, and second-priority and third-priority projects (projects undertaken respectively by provincial authorities and county authorities) were receiving materials that should have gone to first-priority projects (major projects undertaken by ministries of the central government). In order to remedy this situation, a cutback was made primarily in the construction of small plants, and it is probable that the amount of extra-budgetary funds used for such investment in 1960 may have fallen well below the planned level of 6 billion yuan. The construction of modern plants in light industry also was cut back at this time, not only because of the need to conserve resources in the construction industry but also because agriculture was in no condition to supply additional raw materials to light industry.

This cutback in construction in the early summer of 1960 probably would not have resulted in any significant underfulfillment of the budgeted investment program. The chief effect would have been to cut back on the amount of extrabudgetary investment. The subsequent withdrawal of Soviet technicians in July-August, however, probably had a drastic effect on budgeted investment because Soviet aid projects were financed entirely through the budget.

B. Effect of the Withdrawal of Soviet Technicians

In former years the last sector to be affected by cutbacks in construction activity was heavy industry. Even when total investment fell in 1957, investment in heavy industry rose to new levels. The sudden withdrawal of Soviet technicians in July-August 1960, however, directly affected this sacrosanct sector of the economy.

The impact of the withdrawal cannot yet be fully calculated in terms of its effect on the trend of industrial development. Roughly one-fourth of all Chinese Communist industrial investment has gone to Soviet aid projects in the last few years, and Soviet advisers and technicians have played a key role in every phase of construction of such projects. Soviet technicians worked in the surveying and designing of projects, supervised the construction of plant buildings and the installation of equipment, and participated in the final inspection and certification of projects before they were put into production. Although it is probable that Chinese technicians were able to take up some of these tasks where Soviet technicians left off, it does not appear likely that the regime was able to avoid complete shutdowns of activity on a number of projects and at least slowdowns on many others. A drop in the rate of completions as well as a decline in the number of new projects, beginning in the last quarter of 1960 and continuing at least through the first quarter of 1961, seems to have been impossible to avoid.

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C. New Emphasis in Investment

As of March 1961 the Chinese Communist drive for sheer physical increases in investment and output has been replaced by a concern for improvements in quality and variety. The regime has placed new emphasis on remedying earlier failures to provide for repair and maintenance of equipment and for supply of spare parts. In addition, the leadership must decide whether or not the serious food situation, caused by the second consecutive year of bad harvests, calls for a substantial shift in the allocation of investment away from industry toward agriculture.

The rate at which industrial fixed assets were added in 1960 as well as the rate at which they are being added in 1961 probably is much lower than in previous years. A decline in the rate at which industrial capacity was added in 1960 and a consequent decline in 1961 in the hitherto rapid rate of increase of industrial production may well result. It is probable that total investment as well as its most important component, industrial investment, during 1961-63 will increase, but even if the most valuable Soviet technicians return to China, this increase will be less rapid than it was during 1952-59.

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APPENDIX A

STATISTICAL TABLES

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Table 1

Communist China: Sources of Funds for Investment
1952-59

	<u>1952</u>	<u>1953</u>	<u>1954</u>	<u>1955</u>	<u>1956</u>	<u>1957</u>	<u>Total 1953-57</u>	<u>1958</u>	<u>1959</u>
	<u>Million Current Yuan</u>								
Budgeted funds	3,912	6,956	8,147	9,436	15,103	13,540	53,182	22,740	28,240
Extrabudgetary funds	650	1,490	1,570	670	810	1,190	5,730	5,260	5,000
"Peasant" funds	1,320	1,570	2,040	2,270	2,590	2,500	10,970	5,140	5,790
Total	<u>5,882</u>	<u>10,016</u>	<u>11,757</u>	<u>12,376</u>	<u>18,503</u>	<u>17,230</u>	<u>69,882</u>	<u>33,140</u>	<u>39,030</u>
							<u>Average 1953-57</u>		
	<u>Percentage Distribution</u>								
Budgeted funds	66	69	69	76	82	78	76	69	72
Extrabudgetary funds	11	15	14	6	4	7	8	16	13
"Peasant" funds	23	16	17	18	14	15	16	15	15
Total	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>

Table 2
 Communist China: Allocation of Investment by Sector
 1952-59

	<u>1952</u>	<u>1953</u>	<u>1954</u>	<u>1955</u>	<u>1956</u>	<u>1957</u>	<u>Total 1953-57</u>	<u>1958</u>	<u>1959</u>
Million Current Yuan									
Industry (including building construction and geological prospecting)	1,850	3,390	4,480	4,870	7,870	8,000	28,610	18,040	20,379
Agriculture (including forestry and water conservancy)	2,122	2,786	3,107	3,696	4,893	4,590	19,072	9,070	10,583
Transportation (including post and telecommunications)	760	1,070	1,500	1,760	2,610	2,070	9,010	3,400	4,889
Culture, education, and health	340	770	830	700	1,110	1,050	4,460	710	996
Administration	20	280	210	140	160	180	970	190	207
Trade and finance	120	270	390	350	760	370	2,140	570	600
Municipal public utilities	170	250	240	220	350	380	1,440	580	754
"Other"	500	1,200	1,000	640	750	590	4,180	580	622
Total	5,882	10,016	11,757	12,376	18,503	17,230	69,882	33,140	39,030
Average 1953-57									
Percentage Distribution									
Industry (including building construction and geological prospecting)	31	34	38	39	43	47	41	54	52
Agriculture (including forestry and water conservancy)	36	28	26	30	26	27	27	27	27
Transportation (including post and telecommunications)	13	10	13	14	14	12	13	10	12
Culture, education, and health	6	8	7	6	6	6	7	2	3
Administration	1	3	2	1	1	1	1	1	1
Trade and finance	2	3	3	3	4	2	3	2	1
Municipal public utilities	3	2	2	2	2	2	2	2	2
"Other"	8	12	9	5	4	3	6	2	2
Total	100	100	100	100	100	100	100	100	100

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Table 3

Communist China: Value of Additions to Gross Fixed Assets
from Budgeted and Extrabudgetary Investment a/
1952-59

	Million Current Yuan							
	<u>1952</u>	<u>1953</u>	<u>1954</u>	<u>1955</u>	<u>1956</u>	<u>1957</u>	<u>1958</u>	<u>1959</u>
Total budgeted and extrabudgetary investment	4,562	8,446	9,717	10,106	15,913	14,730	28,000	33,240
Additions to total gross fixed assets <u>b/</u>	3,110	6,560	7,370	8,020	11,160	12,920	19,960	23,600
Total gross fixed assets (end of year)	44,900	51,460	58,830	66,850	78,010	90,930	110,890	134,490
Budgeted and extrabudgetary industrial investment	1,850	3,390	4,480	4,870	7,870	8,000	18,040	20,379
Additions to gross industrial fixed assets <u>b/</u>	1,740	2,822	3,344	4,284	3,848	5,102	12,200	13,450
Gross industrial fixed assets (end of year)	15,800	18,622	21,996	26,250	30,098	35,200	47,400	60,850

a. Estimates of fixed assets added from "peasant" investment are not available.

b. Additions in each year represent the value of fixed assets in terms of prices prevailing in the given year.

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Table 4

Communist China: Investment in Light and Heavy Industry
1952-59

	<u>1952</u>	<u>1953</u>	<u>1954</u>	<u>1955</u>	<u>1956</u>	<u>1957</u>	<u>Total</u> <u>1953-57</u>	<u>1958</u>	<u>1959</u>
Million Current Yuan									
Total industrial investment	<u>1,850</u>	<u>3,390</u>	<u>4,480</u>	<u>4,870</u>	<u>7,870</u>	<u>8,000</u>	<u>28,610</u>	<u>18,040</u>	<u>20,379</u>
Heavy industry a/	<u>1,440</u>	<u>2,890</u>	<u>3,810</u>	<u>4,340</u>	<u>6,930</u>	<u>6,900</u>	<u>24,870</u>	<u>15,860</u>	<u>17,779</u>
Light industry	<u>410</u>	<u>500</u>	<u>670</u>	<u>530</u>	<u>940</u>	<u>1,100</u>	<u>3,740</u>	<u>2,180</u>	<u>2,600</u>
Ratio: light to heavy	<u>1:3.5</u>	<u>1:5.8</u>	<u>1:5.7</u>	<u>1:8.2</u>	<u>1:7.4</u>	<u>1:6.3</u>	<u>1:6.6</u>	<u>1:7.3</u>	<u>1:6.8</u>
Average 1953-57									
Percentage Distribution									
Total industrial investment	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>						
Heavy industry	<u>77.8</u>	<u>85.2</u>	<u>85.0</u>	<u>89.1</u>	<u>88.1</u>	<u>86.2</u>	<u>86.9</u>	<u>87.9</u>	<u>87.2</u>
Light industry	<u>22.2</u>	<u>14.8</u>	<u>15.0</u>	<u>10.9</u>	<u>11.9</u>	<u>13.8</u>	<u>13.1</u>	<u>12.1</u>	<u>12.8</u>

a. Including building construction and geological prospecting.

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Table 5

Communist China: Gross Additions to Housing ^{a/}
1952-59

	Million Square Meters							
	<u>1952</u>	<u>1953</u>	<u>1954</u>	<u>1955</u>	<u>1956</u>	<u>1957</u>	<u>1958</u>	<u>1959</u>
Nonagricultural housing (end of year)	454.6	468.0	481.3	495.8	521.0	549.2	575.6	602.1
Additions	7.5	13.4	13.3	14.5	25.2	28.2	26.4	26.5
Agricultural housing (end of year)	2,217.6	2,232.0	2,247.6	2,274.0	2,298.8	2,317.2	2,364.4	2,417.6
Additions	12.0	14.4	15.6	26.4	24.8	18.4	47.2	53.2
Total housing	<u>2,672.2</u>	<u>2,700.0</u>	<u>2,728.9</u>	<u>2,769.8</u>	<u>2,819.8</u>	<u>2,866.4</u>	<u>2,940.0</u>	<u>3,019.7</u>
Per capita housing ^{b/} (square meters)	4.64	4.58	4.52	4.47	4.44	4.41	4.41	4.42

a. No allowance has been made in this table for housing that has deteriorated and been taken out of service.

b. Based on end-of-year population data.

Table 6

Communist China: Above-Norm Investment Levels in Construction

	<u>Million Current Yuan</u>
Iron and steel industry and reservoir construction projects	20
Motor vehicle, tractor, and rolling stock manufacturing; shipbuilding; and coal mining industries	10
Nonferrous metals, chemical, and cement industries	6
Power stations and power transmission lines and substations; oil-extraction, oil refining, machine building (excluding communications equipment), textile, papermaking, and salt and sugar refining industries; and motor vehicle and ship main- tenance works	5
Rubber, cigarette-making, and pharmaceutical industries	4
Ceramics, food processing (excluding sugar refining), and other light industries	3

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APPENDIX B

METHODOLOGY FOR ESTIMATING INVESTMENT IN COMMUNIST CHINATable 1*: Sources of Funds for Investment, 1952-59

Table 1 was constructed by adding together the three main sources of funds for investment in Communist China, the derivation of which is explained below.

1. The estimate of budgeted funds for investment was derived by first subtracting allowances for cash reserves and for the operating expenses of general geological prospecting activity from the figure for gross appropriations for capital construction in the annual budget to obtain the figure for net appropriations for capital construction. The figure for "completed capital construction" in the annual budget was then subtracted from the figure for net capital construction appropriation to arrive at the value of changes in inventory of construction materials. After changes in construction inventories were accounted for, the figure for "completed capital construction" constituted the main component of total budgeted investment. The second component of total budgeted investment was derived by including the budget category of agricultural operating expenditures and working capital allowances less 5 percent to cover the operating expenses of Ministry of Agriculture personnel engaged in the agricultural development program, and the costs of stockpiling agricultural products.

2. The estimate of extrabudgetary investment funds for 1952-58 was derived by subtracting the official claim for investment "under the plan" -- that is, investment through the national budget carried out through the annual national capital construction plan -- from the official claim for "total investment," both of which are given in the regime's statistical compendium, Wei-ta ti Shih-nien (The Great Decade). 2/ Statements of extrabudgetary investment began to appear in the Chinese Communist annual plan reports in 1958; the figure for 1959 in Table 1 is the official Chinese estimate. 3/

3. The estimate of funds available for investment by the agricultural population ("peasant" funds) was derived by estimating total purchases of investment goods by the agricultural sector. The total of such purchases is composed of (a) purchases of investment goods by the agricultural sector from the nonagricultural sector, through retail trade channels, and (b) purchases of investment goods produced in the countryside by the agricultural sector itself.

50X1
50X1

* Appendix A, p. 23, above.

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Table 2*: Allocation of Investment by Sector, 1952-59

The estimate of the allocation of investment by sector for 1952-58 is based on data from The Great Decade, and the estimate for 1959 is derived from data appearing in the Chinese Communist annual plan announcements. Allocation of investment to the agriculture, forestry, water conservancy, and meteorology sector includes "peasant" funds and the category of agricultural operating expenditures and working capital from the national budget as well as the figures for agricultural investment derived from the annual plan and budget statements.

Table 3**: Additions to Gross Fixed Assets from Budgeted and Extrabudgetary Investment

Published figures on the value of additions to gross fixed assets are available for only two of the three categories of sources of funds for investment. Data released by the Chinese Communists are believed to include only additions to fixed assets from budgeted funds and from extrabudgetary funds. The regime has not so far made claims as to the value of additions to fixed assets from "peasant" funds, and there is available very little data that would aid in making such an estimate. The majority of fixed assets added from this "peasant" investment probably is concentrated in the agricultural sector and consists of the value of newly constructed small-scale irrigation and water conservancy works and farm buildings, the value of acquisitions of draft animals, and the value of farm tools and machinery. The value of the estimated additions to agricultural housing shown in Table 5,*** for instance, would be included as one of the many diverse elements of the value of additions to fixed assets from "peasant" investment.

The estimate of the gross value of fixed assets added in industry during 1952-59 is probably more reliable than the estimate of the gross value of total fixed assets added, by virtue of the relatively sophisticated accounting system of the industrial sector in Communist China and the importance that the regime attaches to developments in that sector. Estimates of additions to fixed assets represent the value of these additions in terms of prices prevailing in the given year.

Additions to total fixed assets from budgeted and extrabudgetary investment during 1952-58 are given in The Great Decade. The estimate of total fixed assets added in 1959 is made on the assumption that the value of additions in 1959 was equal to 71 percent of budgeted and extrabudgetary investment in that year, the same percentage as given for 1958. The estimate of total fixed assets in 1952 is based on a

- * Appendix A, p. 24, above.
- ** Appendix A, p. 25, above.
- *** Appendix A, p. 27, above.

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1956 statement of the value of total fixed assets in Communist China at the end of 1949 and data on annual additions for the years 1950-51. 5/ The estimate of total industrial fixed assets in 1952 and the additions during 1952-58 were made on the basis of data contained in The Great Decade and earlier Chinese statements on the subject. 6/ The estimate of industrial fixed assets added in 1959 was made on the assumption that these were equal to 66 percent of industrial investment in 1959.

Table 4*: Investment in Light and Heavy Industry, 1952-59

The estimate of light industrial investment during 1952-58 is based on data contained in The Great Decade and Chinese Communist discussions of light industrial development in articles published in earlier years. 7/ The estimate for light industrial investment in 1959 is derived from Chinese statements of additions to light industrial capacity as the result of expenditure of budgeted investment funds, plus an estimate of the proportion of extrabudgetary funds devoted to light industrial investment for that year. Light industrial investment was then subtracted from the total industrial investment figure, and the residual was accepted as the amount devoted to heavy industrial investment. The resulting ratios between light and heavy industrial investment give slightly greater weight to heavy industry than do official Chinese statements because the definition of heavy industry, for purposes of this report, includes building construction and geological prospecting activities whereas Chinese discussions generally exclude them.

Table 5**: Gross Additions to Housing, 1952-59

Table 5 constitutes only an estimate of the general order of magnitude of housing available in Communist China.

1. The estimate of nonagricultural housing in Communist China in 1952 is derived from a Chinese sample study of 1956. Estimates of the gross additions to the stock of nonagricultural housing during 1952-59 are based on official Chinese statements of the numbers of square meters of housing constructed during this period. 8/

2. The estimate of agricultural housing in Communist China in 1952 is based on an assumption that the average per capita housing available in rural areas was about the same as that available in urban areas (4 to 4.5 square meters). This assumption generally agrees with

* Appendix A, p. 26, above.

** Appendix B, p. 27, above.

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the estimates of per capita housing given in earlier surveys of rural living conditions in China. 9/ The per capita figure was then multiplied by the estimated agricultural population of China in 1952. The estimates of additions to agricultural housing during 1952-59 are based on Chinese sample data for various years on the proportion of total peasant expenditures invested in housing construction. 10/ The number of square meters of construction represented by these expenditures was derived from data on the average construction cost per square meter of housing in agricultural areas.

III, E, 2: Defense Activity*

Investment in construction in the machine building industry during 1953-57 is estimated to have been 7.18 billion yuan, or 25 percent of total industrial investment. 11/ Reported data on investment in actual machine building -- that is, for machinery and equipment manufacturing or for the metal processing sector -- fell far short of the figure of 7.18 billion yuan. The metal processing sector accounted for 3.41 billion yuan, or 47.5 percent of the total of 7.18 billion yuan. The plants comprising the metal processing sector were subordinate to the First Ministry of Machine Building and the Ministry of Power Equipment Industry until the end of 1957. 12/ The remaining investment (3.77 billion yuan, or 52.5 percent of the total of 7.18 billion yuan) is assumed to have been allocated to industries engaged in military production under the former Second Ministry of Machine Building. Investment in the machine building industry in 1958 is estimated to have been 4.5 billion yuan, or 25 percent of total industrial investment, the same percentage as given for the period 1953-57. The metal processing sector was assumed to have accounted for 2.1 billion yuan, or 47.5 percent of total machine building investment, the same percentage as during 1953-57. The residual of approximately 2.4 billion yuan, or 52.5 percent, is estimated to have been allocated to industries engaged in military production.

* P. 17, above.

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APPENDIX C

INSTITUTIONAL BACKGROUND OF THE INVESTMENT PROGRAM

Investment, like all other phases of economic activity in Communist China, is planned and undertaken in accordance with policies determined by the leadership of the regime. Part of the success of Chinese investment policies during 1952-59 is attributable to the institutional framework through which the investment program has been planned and controlled.

1. National Economic Plan

The investment program is an integral part of the national economic plan. Complete versions of the annual national economic plans of Communist China have never been available, but the planned target for total investment financed by funds from the national budget and rough allocations by sector of this investment usually are announced. Since 1957, such announcements usually have given the number of above-norm projects to be constructed and the additions to capacity expected to result from investment. In addition, the national economic plan gives the relative proportions of total investment allocated to construction of enterprises under the jurisdiction of ministries of the central government and to those under the jurisdiction of local governments (provinces, municipalities, and autonomous regions). The reorganization of industrial administration in 1958 (with the resultant increase in responsibilities delegated to local authorities) has meant that a much larger proportion of planned total investment now is handled by local authorities. This planned proportion undertaken by local authorities jumped from 18.8 percent of planned total investment in 1957 to 49.7 percent in the 1960 plan.

Investment plans are made up for periods other than 1 year. Investment plans were integral parts of both the First Five Year Plan (1953-57) and the draft Second Five Year Plan (1958-62). The "leap forward" of 1958 made this latter plan obsolete, and a new investment plan probably is an important component of the supplementary plan now being drafted for the last 3 years of the Second Five Year Plan period. 13/

Approximately 70 percent of total funds devoted to investment in Communist China come from the national budget and are earmarked for investment objectives set forth in the national economic plan. In 1958 the regime also began to include in the national economic plan announcement the estimated amount of extrabudgetary funds that would

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be invested in the plan year. The plans so far have not contained any indication of the allocation by economic sector of these extra-budgetary funds, which usually constitute approximately 11 percent of the total funds devoted to investment. The third source, "peasant" investment -- that is, funds accumulated in rural areas and used for purchases of fixed assets -- is not planned or allocated according to the national economic plan. Nevertheless, it should be noted that "peasant" investment is not under the control of individuals but of governmental organizations in rural areas.

2. Control of Investment

The chief instrument for planning and allocating investment in Communist China is the State Planning Commission, the government body responsible for long-range economic planning. The planning of construction activity to be undertaken with investment funds also is a primary task of the State Planning Commission. The chief instrument for assuring proper use of investment funds and for checking on the progress of construction work is the Construction Bank of the Ministry of Finance.

a. Control over Planning of Construction

Plans for above-norm and below-norm construction projects for the following year are drawn up by the economic ministries of the central government and by local authorities in the last quarter of the current year and are submitted to the National Economic Commission (the government body nominally responsible for annual economic plans) and the State Planning Commission through the State Council. Although construction plans are formally submitted to the National Economic Commission for review and approval, the State Planning Commission has assumed the dominant role in annual planning for the past 3 years and now has the primary role in approving plans for construction.

Control over allocations of construction materials has been vested in the State Planning Commission since 1958, and the Commission balances plans for construction against the projected availability of materials. The Commission also determines whether these projects are consistent with long-term projections of the rate and direction of growth of the economy. Between 1957 and early 1961, responsibility for seeking measures to cut the costs of construction, for encouraging the development of standardized construction designs, and for developing new techniques in construction was vested in a Capital Construction Commission. In January 1961 this Commission was abolished, and its functions were assumed by the State Planning Commission.

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Once the annual construction plan has been approved and promulgated by the State Council, the State Planning Commission receives periodic statistical reports on the progress of construction. Such reports, which may be made on a 10-day, monthly, or quarterly basis, allow the Commission to adjust the program to current conditions.

b. Control over Investment Funds

The chief instrument of control over investment funds is the Construction Bank, a subordinate unit of the Ministry of Finance. Since 1954, all investment funds have been deposited in the Construction Bank and its branches. In areas where no branch of the Construction Bank exists, branches of the Peoples Bank serve as the banking agents for such funds. ^{14/} Funds designated for a specific construction project of a particular enterprise are carried in the enterprise's account in the Construction Bank. The construction enterprise doing the actual work is advanced funds by the Bank for the purchase of construction materials and for wages. When the specific project has been certified by the Bank as completed, the account of the enterprise for which the work was done is debited for the cost of the project. Construction activity can be broken down into phases, and funds are allocated on the basis of such breakdowns. Officials of the Construction Bank are required to inspect each phase of construction and to certify it as acceptable before the next phase of investment funds will be released by the Bank. Because changes in the design of projects and changes in the timetables of construction may affect both the phasing and the financing of construction, approval of the Bank is necessary before such changes may be made.

Certification of completion by the Bank may mean that an entire plant is finished and ready to be transferred from the construction enterprise to the enterprise which will use the plant to produce goods, or it may mean only that some structure, subproject, or installation has been finished and that the subsequent stages of construction may now be undertaken. In reports on the results of investment, the regime customarily refers to "completed and partly completed" construction, and this usage apparently stems from the system of control of investment funds described above.

The chief hazard in this otherwise very effective system of control over construction is that at least three organizations are involved in the process -- the organization for which the construction is being done, the organization which actually is doing the construction work, and the Construction Bank which must supervise the whole process. In the interest of eliminating some of the involved consultation that apparently resulted when one or another of the interested parties felt the necessity for changing the designs of a project and in the hope of

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cutting the costs of construction by establishing an incentive to save construction funds, the regime in 1958 began to encourage the adoption of the "contract system" of investment. Changes brought about by this system are as follows: (1) investment funds are now deposited in the construction enterprise's account in the Construction Bank to cover the costs of construction contracted for by a given enterprise; (2) the power to change designs and substitute materials and equipment is now given to the construction enterprise with the proviso that the original budget cost of the project is not exceeded and that the planned capacity of the project is not lowered; and (3) any savings resulting from reduction of costs may now be used by the construction enterprise to invest in new tools, machinery, and equipment. 15/ In the past, such savings had to be remitted back to the national budget at the end of the year. If the system works as planned, the additional latitude for making changes may eliminate much time-consuming consultation and discussion and the incentive for construction enterprises to cut construction costs may result in substantial savings of investment funds. Although these changes may relieve the Construction Bank of some of its duties in overseeing the construction process, it seems likely that the Bank's control over management of investment funds for construction will remain unimpaired.

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APPENDIX D

GLOSSARY

Above-norm projects: Construction projects in Communist China are divided according to their cost into above-norm and below-norm projects for purposes of planning and management. Norms generally run from 3 million to 5 million yuan in light industry and from 5 million to 20 million yuan in heavy industry and, as shown in Table 6,* reflect the relative costs and complexity of investment in each industry. Permission to undertake an above-norm project can be granted only by planning and financial authorities at the national level. Above-norm projects constitute the heart of the Chinese program for industrialization and are accorded first priority in the allocation of financial and material resources. By 1959 the size and complexity of construction activity in China had grown to such an extent that the regime raised norms in various industries -- for example, the norm for investment in the iron and steel industry was raised from 10 million to 20 million yuan -- and added norms in such areas as water conservancy, where projects for constructing reservoirs now have norms of 20 million yuan. 16/

Budgeted investment funds: Budgeted investment funds include those investment funds carried in the state budget under the categories "economic construction expenditures," "administration," and "social, cultural, and educational." In addition to the economic construction funds designated for agricultural investment, a portion of the budget category of "agricultural operating expenditures and working capital" also represents budgeted funds used for agricultural investment.

Extrabudgetary investment funds: Extrabudgetary investment funds are funds which are set aside by enterprises and organizations from income (such as funds for worker welfare) and are used for investment but which are not reflected in the state budget.

Fixed assets: The term fixed assets (also called fixed capital) refers to property which is used over and over again in production of goods and which wears out over a long period of time. Fixed assets in Communist China include buildings, machinery and equipment, and installations that (1) have a value of more than 200 yuan and (2) have a useful life of more than 1 year. 17/

* Appendix A, p. 28, above.

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Investment: The term investment in this report refers to the value of outlays for new plant and equipment and other fixed assets as well as outlays for the expansion and reconstruction of existing fixed assets. Changes in the value of industrial and commercial inventories are excluded. The Chinese Communist term investment in capital construction is only partly analogous to the term investment as defined above because some components of investment are not included in the Chinese definition. Chinese data on "investment in capital construction" include only investment under the state plan from budgeted funds and exclude investment from extrabudgetary and "peasant" funds.

Gross domestic investment: The term gross domestic investment, which is a more inclusive measure than the term investment as used in this report, refers both to the value of outlays for new plant and equipment and other fixed assets and to the value of additions to industrial and commercial inventories.

"Key-point" projects: Through 1958, "key-point" projects were almost synonymous with above-norm projects. Since the advent of the small-scale plant construction program in 1958, however, certain small-scale and below-norm projects, such as chemical fertilizer and cement plants, have been designated as "key-point" projects and have been given the type of priority in the allocation of materials and equipment normally reserved for above-norm projects.

"Peasant" funds: The term "peasant" funds represents the aggregate of funds accumulated from income and from state loans and subsidies and used for purchase of fixed assets by communes, production brigades, individual peasants, and other diverse economic units in the countryside.

Productive and nonproductive investment: Productive investment -- an official Chinese Communist term -- includes investment in factory buildings, machinery, and equipment used in production; railroads, highways, harbors, wharves, and other transportation facilities; and warehouses for commercial and banking undertakings. Nonproductive investment includes investment in housing, school buildings, hospitals, movie theaters, clubs, dining halls, offices for government departments, and all military equipment and installations. 18/

Soviet aid projects: The term Soviet aid projects refers to major industrial plants which are designed, and usually built, under Soviet supervision and which normally are furnished with complete sets of Soviet machinery. These projects are not aid projects in the sense of free gifts to Communist China but are paid for by the export of Chinese products to the USSR.

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